

**REMARKS**

This Application has been carefully reviewed in light of the Office Action mailed October 19, 2004. Claims 1-21 are currently pending.

**Allowed/Allowable Claims**

Applicants note with appreciation the indication by the Examiner that Claims 15-20 are allowed and that Claims 3, 4, 10, and 11 would be allowable if rewritten in independent form.

**Section 103 (a) Rejections**

Claims 1-2, 5-9, 12-14 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,401,001 issued to Jang et al. ("*Jang*") in view of U.S. Application Publication No. 2004/0107019A1, listing Keshavmurthy et al. as inventors ("*Keshavmurthy*"), and the article entitled "Influence Of Geometrical Factor On Heat Transfer Rate During GTAW For Welding-Based Deposition", listing Kmecko et al. as authors ("*Kmecko*"). Applicants respectfully traverse these rejections for the reasons stated below.

As the Examiner is aware, the establishment of a *prima facie case* of obviousness utilizing a combination of references requires a *motivation to combine* features extracted from such references. Assuming for the sake of argument that *Jang*, *Keshavmurthy*, and *Kmecko* when combined disclosed each and every element of the invention defined by Claim 1, Applicants question the Examiner's alleged motivation to combine features from such references. The following was indicated in the Office Action as a motivation to combine *Jang*, *Keshavmurthy*, and *Kmecko*:

"It would have been obvious to adapt Jang et al. in view of Keshavmurthy et al. and Kemcko et al. to provide this to more accurately control and enhance the weldment by taking into account the geometrical factor's effect on the heat transfer rate." (Office Action, Page 3).

The above alleged motivation is simply hindsight reconstruction. Additionally, the reasoning falls well short of providing the required evidence of a motivation to combine the prior art references. Hence, the Examiner has not established a *prima facie case* of

obviousness. The fact that a prior art device could be modified so as to produce the claimed invention is not a basis for an obviousness rejection unless the prior art suggested the desirability of such a modification. In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). The Examiner is reminded that "[t]he factual inquiry whether to combine references must be thorough and searching." (In re Sang-Su Lee, 277 F.3d 1338, 1343). And "[an] examiners conclusory statements . . . do not adequately address the issue of motivation to combine." Id.

Without the Applicants' disclosure in hand, why would one of ordinary skill in the art provide a method that includes "*automatically* adjusting, during material deposition for a respective deposition point, one or more parameters of the welding-based deposition process *based on the geometrical factor* for the respective deposition point" in combination with the other limitations of Claim 1? (emphasis added) Applicants respectfully submit that one of ordinary skill in the art would not. For example, the portions of the *Jang* disclosure, cited by the Examiner, in and of itself does not recognize a need for "*automatically* adjusting, during material deposition *for a respective deposition point*". (emphasis added).

As the Examiner can see, three of the Applicants are the authors of the *Kmecko* article. These three Applicants introduced the concept of the geometrical factor in the *Kmecko* article. Now, in the present Application, these three Applicants along with another Applicant are the first to recognize the concept of the geometrical factor in the combination of Claim 1. Applicants believe that one of ordinary skill in the art, having access to the disclosures of *Jang*, *Keshavmurthy*, and *Kmecko*, would not arrive at the combination of the invention defined by Claim 1. Accordingly, Claim 1, viewed as a whole, should be allowable.

The Examiner in setting forth the above alleged motivation makes no citation to any particular reference. Accordingly, if the Examiner is relying upon "common knowledge" or "well known" principles to supply the required motivation or suggestion to modify the references, Applicants respectfully request that a reference be provided in support of this position pursuant to M.P.E.P. § 2144.03. Alternatively, if the Examiner's personal knowledge is being relied on to supply the required motivation or suggestion to modify, Applicants respectfully request that an affidavit supporting such facts be provided pursuant to M.P.E.P. § 2144.03 and 37 C.F.R. 1.104(d)(2).

For at least this reason, Applicants respectfully submit that Independent Claim 1 is allowable. Independent Claim 8 recites limitations that are similar, although not identical, to the limitations of Claim 1. Therefore, Claim 8 is allowable for analogous reasons. Claims 2, 5-7, 9, 12-14 and 21 depend from independent Claims 1 and 8, respectively, and are thus also allowable over the cited art.

**CONCLUSIONS**

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants believe no fee is due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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